

REMARKS

Claims 1-6 are pending in the above-identified application.

Issues Under 35 U.S.C. 102(e)

Claims 1-4 have been rejected under 35 U.C.S. 102(e) as being anticipated by Gajewski '957 (USP 6,699,957). This rejection is traversed for the following reasons.

Gajewski '957 discloses polyurethane compositions for golf ball covers. Gajewski '957 discloses at column 8, lines 47-61 Comparative Example "C" which is formed using the prepolymer "Adiprene LW-570". It is asserted in the Office Action that the polymeric material formed in Comparative Example C of Gajewski '957 is essentially equivalent to that of Example 7 shown in Table 2 at page 17 of the present specification which employs "Adiprene LW-520/LW-570".

It is submitted that Example 7 in Table 2 of the present specification significantly differs from Comparative Example C of Gajewski '957 for the following reasons. The composition of Comparative Example C in Gajewski '957 is as follows:

Adiprene LW-570	100 parts
1,4 butanediol	6.2 parts
trimethylolpropane	1.5 parts.

The composition used for the cover of Example 7 in the present specification is as follows:

Adiprene LW-520	70 parts
Adiprene LW-570	30 parts
MED	18 parts
Titanium dioxide	small quantity.

Consequently, the only prepolymer material for Comparative Example C of Gajewski '957 is Adiprene LW-570, whereas the prepolymers used in the composition of Example 7 of the present specification include a combination of Adiprene LW-520 (70 parts) and Adiprene LW-570 (30 parts). In this regard, it is noted that the hardness properties for these prepolymers differ significantly. As shown from the data sheets (web site of Crompton Corporation which manufactures Adiprene), it is evident that the hardness of Adiprene LW-520 is 90 (Shore A), while the hardness of Adiprene LW-570 is 75 (Shore D). The following table includes a hardness conversion from Shore A to Shore D:

	Main material	Hardness (Shore A)	Hardness (Shore D)
Present Application	Adiprene LW-520	90	About 40
Gajewski '957	Adiprene LW-570	-	75

It is evident from the above table that the significant amount of Adiprene LW-520 (Shore D hardness of 40) in the golf ball cover composition of Example 7 of the present specification will have

significantly different hardness properties than the Comparative Example C of Gajewski '957 which includes only Adiprene LW-570 (Shore D hardness of 75). It is further noted that these significant differences in hardness correspond to significant differences in complex elastic modulus properties. Put simply, the golf ball cover composition used in Gajewski '957 Comparative Example C has a much higher hardness. Thus, it appears that the golf ball cover of Gajewski '957 will not satisfy the mathematical formula I recited in claim 1 of the present application. Consequently, it is submitted that significant patentable distinctions exist between the present invention and Gajewski '957 such that the above-noted rejection should be withdrawn.

Issues Under 35 U.S.C. 103(a)

Claims 5 and 6 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Gajewski '957 in view of Nesbitt '193 (USP 4,431,193).

The distinctions between the present invention and Gajewski '957 are noted above. It is further submitted that Gajewski '957 does not include a reasonable basis for suggesting to one skilled in the art to select the appropriate materials and processing conditions in order to arrive at the golf ball cover having the

complex elastic modulus properties recited in the present claims. Consequently, significant patentable distinctions exist between the present invention and Gajewski '957 such that this basis of the above-noted rejection should be withdrawn.

Nesbitt '193 discloses a golf ball having a thickness of about 0.5-2.5 mm as shown in Figure 2 and as disclosed at column 3.

Nesbitt '193 fails to disclose or suggest the golf ball cover of the present invention having the properties of formula (I) recited in the present claims. Nesbitt '193 also fails to disclose a golf ball cover formed from a polyurethane elastomer which includes the reaction product of all of: (A) an aliphatic diisocyanate monomer; (B) a high molecular weight polyol; (C) a low molecular weight diol having an aromatic moiety; and (D) a saturated diol curing agent, as required by the golf ball cover composition of Gajewski '957. Therefore, significant patentable distinctions exist between the present invention and Nesbitt '193, and there fails to be an adequate basis for a motivation to one skilled in the art to combine Gajewski '957 with Nesbitt '193. Consequently, the basis for the above-noted rejection has been removed such that this rejection should be withdrawn.

Conclusion


It is submitted for the reasons stated above that the present claims define patentable subject matter such that this application should now be placed condition for allowance.

If any questions arise regarding the above matters, please contact Applicant's representative, Andrew D. Meikle (Reg. No. 32,868), in the Washington Metropolitan Area at the phone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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By   
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Attachment: Copy of web site portions of Crompton Corporation

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Polyether/Aliphatic Urethane Prepolymer

Uniroyal Chemical

**Product Description:**

ADIPRENE( LW-570 is a polyether based (PTMEG) liquid casting urethane prepolymer that, yields tough, high quality elastomers in the 75 Shore D hardness range when cured with methylene dianiline. It is readily processable by conventional hand and machine mixing techniques. Vulcanizates of Adiprene LW 570 have excellent hydrolytic stability and are more resistant to impact than most structural plastics.

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Product Data Sheet**PRODUCT DESCRIPTION**

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**Adiprene? LW520**Polyether/Aliphatic Urethane Prepolymer  
Uniroyal Chemical**Cro**  
Uni**Product Description:**

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